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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,968	06/21/2000	Roberto Aiello	FANT-00-013	7156

7590 06/16/2004

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EXAMINER
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PHU, PHUONG M

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 06/16/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/599,968

Applicant(s)

AIELLO ET AL.

Examiner

Phuong Phu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>14</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is responsive to the Amendment filed on 5/10/04.

***Election/Restrictions***

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: claims 1-20, drawn to transceiver technology with circuitry structures; and

Species II: claims 21-26, drawn to forming signal frames which comprises a plurality of slots.

Currently, no claim is generic.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Since claims 1-20 have been under examination, the examiner now selects group I, claims 1-20 for continuing the examination.

***Double Patenting***

4. Claims 14 and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 09/949,256. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-9 of copending Application No. 09/949,256 encompass all limitations recited in claims 14 and 20 of the instant application.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 14 and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 51-89 of copending Application No. 09/393,126. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 51-89 of copending Application No. 09/393,126 encompass all limitations recited in claims 14 and 20 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilhousen et al (5,715,236), prior art of record.

-As per claims 1, 5 and 6, see figures 1, 2, 3, 9 and 11, and col. 5, line 48 to col. 16, line 26 and col. 28, line 1 to col. 29, line 52 and col. 32, line 16 to col. 33, line 52, Gilhousen et al discloses a system includes a receiver (figure 2) wherein the receiver comprises:

rf front end means (30);

detector means (32, 34) for detecting a received signal by scanning in time domain (see col. 14, lines 30-37); and

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data recovery means (32, 36, 50) for receiving spread spectrum rf signals having different modulation methods, which are performed at a slave transceiver by means (606), means (610) and means (612) (see figure 11), and means (436) (see figure 9), and having different data rates, i.e., having different pulse repetition frequencies (see col. 33, lines 42-44).

-As per claims 2 and 7, Gilhousen et al discloses that said data recovery means can receive signals modulated by two-phase keying (see col. 34, lines 49-65).

-As per claims 3, 4, 8 and 9, Gilhousen et al discloses that said data recovery means receive signal modulated with amplitude modulations performed by means (606), means (610) and means (612) (see figure 11).

-As per claim 10, Gilhousen et al discloses a device "receiving decoder" for detect changes in data rate (see col. 11, lines 17-26).

-As per claims 11 and 12, Gilhousen et al discloses a A/D module (112) (see figure 3) for determining when to sample an incoming signal to generate digital output signals.

-As per claim 13, Gilhousen et al discloses a decoder (36, 50) as claimed.

8. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fullerton et al (5,677,927), newly-cited.

-As per claims 1, 5 and 6, see figures 14, 18, 19, 24, and col. 16, line 39 to col. 18, line 7, col. 18, line 62 to col. 19, line 31, col. 24, line 17 to col. 25, line 64, Fullerton et al discloses a system includes a receiver (see figure 14) wherein the receiver comprises:

rf front end means (1402);

detector means (1408) for detecting a received signal; and

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data recovery means (1424) for receiving spread spectrum rf signals having different modulation methods and/or having different pulse repetition frequencies (see also figures 18, 19, 24, and col. 14, lines 44-57 and col. 15, lines 19-24).

-As per claims 2 and 7, Fullerton et al discloses that said data recovery means can receive signals modulated by phase/frequency keying (see col. 14, lines 44-57).

-As per claims 3, 4, 8 and 9, Fullerton et al discloses that said data recovery means receive signals modulated with amplitude modulations (see col. 14, lines 44-57).

-As per claim 10, Fullerton et al discloses at least a loop module (1429) to detect changes in a pulse sampling rate (see figure 14, and col. 17, lines 44-49).

-As per claims 11 and 12, Fullerton et al discloses a module ((1902) or (2418)) (see figures 19 and 24) for determining when to sample an incoming signal to generate digital output signals.

-As per claim 13, Fullerton et al discloses a decoder ((1904) or (2452) as claimed (see figures 19 and 24).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fullerton et al in view of Gilhousen et al.

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-As per claim 14, Fullerton et al discloses a cellular telephone system using ultra-wideband spectrum signals for communications (see col. 12, line 65 to col. 13, line 2) wherein the cellular telephone system inherently comprises at least a base station and two mobile units in a particular cell for transmitting and receiving the ultra-wideband spectrum signals, and within the cell, the two mobile units communicate to each other via the base station. Fullerton et al does not disclose whether the cellular telephone system comprises a first slave transceiver, a second slave transceiver and a master transceiver as claimed.

Gilhousen et al discloses a cellular communication system (see figure 1) comprising a first remote unit (16) as a first slave transceiver; a second remote unit (18) as a second slave transceiver, and a base station (12) as master transceiver wherein said master transceiver manages data transmission and synchronization between said first slave transceiver and said second slave transceiver (see col. 5, line 48-57).

Therefore, for an application, since Fullerton et al does not disclose in detail how the cellular telephone system operates, it would have been obvious for one skilled in the art when building Fullerton et al cellular telephone system to implement the at least base station and two mobile units in a particular cell as a master transceiver, a first slave transceiver and a second slave transceiver, respectively, as taught by Gilhousen et al, so that said maser transceiver would manage data transmission and synchronization between said first slave transceiver and said second slave transceiver.

-As per claims 15. 17 and 18, Fullerton et al in view of Gilhousen et al discloses that the master transceiver could be implemented to comprise a receiver wherein the receiver (see

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Fullerton et al, figures 14, 18, 19, 24, and col. 16, line 39 to col. 18, line 7, col. 18, line 62 to col. 19, line 31, col. 24, line 17 to col. 25, line 64) comprises:

rf front end means (1402) (see Fullerton et al, figure 14);  
detector means (1408) for detecting a received signal; and  
data recovery means (1424) for receiving spread spectrum rf signals having different modulation methods and/or having different pulse repetition frequencies (see Fullerton et al, also figures 18, 19, 24, and col. 14, lines 44-57 and col. 15, lines 19-24).

-Claim 16 and 19 are rejected with similar reasons set forth for claim 2.

-As per claim 20, in Fullerton et al in view of Gilhousen et al, said first slave transceiver is inherently communicate with said master transceiver.

### ***Response to Arguments***

11. Applicant's arguments filed on 5/10/04 have been fully considered. Correspondingly, the rejection, under 35 U.S.C. 102(b), to claims 14-20, as being anticipated by Gilhousen et al, has been withdrawn. However, upon reconsideration and further consideration, claims 1-20 are deemed not patentable with reasons set forth above in this Office Action and/or explanations in the previous Office Action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 703-306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuong Phu  
06/04/04

Phuong Phu  
Primary Examiner  
Art Unit 2631

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**PRIMARY EXAMINER**